



The Globus Toolkit “Ecosystem”

More Useful Tools and Technologies for Grid Computing

These pages provide quick references to original source information for the tools and technologies mentioned in this tutorial. The items mentioned in each section are representative of their categories, but this inventory is far from comprehensive.

Most, but not all, of the items mentioned here are available under open source licenses.

Many of the tools listed in this reference sheet are also available as part of integrated distributions including NMI, VDT, NPACkage, and NPACI Rocks. See the “System Packaging/Distribution” section for links to these distributions.

Species: Security Tools

Pre-WS and WS Authentication and Authorization	<p>Web: http://www-unix.globus.org/toolkit/docs/3.2/gsi/index.html</p> <p>Developed by: The Globus Alliance</p> <p>Distributions: Globus Toolkit 3.2 NMI-R5</p> <p>Contact: info@globus.org</p>
MyProxy	<p>Web: http://grid.ncsa.uiuc.edu/myproxy/</p> <p>Developed by: NCSA</p> <p>Distributions: NMI-R5</p> <p>Contact: myproxy-users@ncsa.uiuc.edu *</p>
KX.509/KCA	<p>Web: http://www.citi.umich.edu/projects/kerb_pki/</p> <p>Developed by: Center for Information Technology Integration, The University of Michigan</p> <p>Distributions: NMI-R5 Download from University of Michigan</p> <p>Contact: information@citi.umich.edu</p>
PKINIT	<p>Web: http://147.228.60.85/software/heimdal/pkinit.en.html</p> <p>Developed by: MetaCentrum Project</p> <p>Distributions: PKINIT patch to the Heimdal Kerberos implementation</p> <p>Contact: Daniel Kouril <kouril@ics.muni.cz></p>
PURSE	<p>Developed by: GRIDS Center</p> <p>Distributions: PURSE is not yet included in any known distribution, but it can be made available on request.</p> <p>Examples: Earth System Grid – www.earthsystemgrid.org</p> <p>Contact: info@grids-center.org</p>
CAS	<p>Web: http://www-unix.globus.org/toolkit/docs/3.2/gsi/index.html</p> <p>Developed by: The Globus Alliance</p> <p>Distributions: Globus Toolkit 3.2 NMI-R5</p> <p>Contact: info@globus.org</p>
VOMS	<p>Developed by: European DataGrid Project</p> <p>Distributions: Download from the DataGrid Project</p> <p>Contact: sec-grid@infn.org</p>
VOMRS	<p>Web: http://computing.fnal.gov/docs/products/vomrs/</p> <p>Developed by: Fermi National Laboratory</p> <p>Distributions: Download from Fermi National Laboratory</p> <p>Examples: USCMS</p> <p>Contact: helpdesk@fnal.gov</p>

Species: Monitoring/Discovery Tools

MDS	<p>Web: http://www-unix.globus.org/toolkit/docs/3.2/infosvcs/index.html</p> <p>Developed by: The Globus Alliance</p> <p>Distributions: Globus Toolkit 3.2 NMI-R5</p> <p>Contact: info@globus.org</p>
Ganglia	<p>Web: http://ganglia.sourceforge.net/</p> <p>Developed by: UC Berkeley Millenium Project</p> <p>Distributions: NPACI Rocks Download from SourceForge</p> <p>Contact: ganglia-developers@lists.sourceforge.net *</p>
Inca	<p>Web: http://tech.teragrid.org/inca/</p> <p>Developed by: TeraGrid Project</p> <p>Distributions: NMI-R5 Download from TeraGrid</p> <p>Contact: kericson@sdsc.edu</p>
BigBrother	<p>Web: http://www.bb4.org/</p> <p>Distributed by: Quest Software</p> <p>Distributions: Download from Quest Software</p> <p>Contact: bb@bb4.org *</p>
ESG Monitoring	<p>Developed by: Earth System Grid II Project</p> <p>Distributions: This software is not yet part of any known distribution, but it can be made available on request.</p> <p>Contact: esg-manage@earthsystemgrid.org</p>
R-GMA	<p>Web: http://www.r-gma.org/</p> <p>Developed by: European DataGrid Project</p> <p>Distributions: Download from the DataGrid Project</p> <p>Contact: s.m.fisher@rl.ac.uk</p>

Species: Computing/Processing Tools

GRAM	<p>Web: http://www-unix.globus.org/toolkit/docs/3.2/gram/index.html</p> <p>Developed by: The Globus Alliance</p> <p>Distributions: Globus Toolkit 3.2 NMI-R5</p> <p>Contact: info@globus.org</p>
Condor, Condor-G, DAGman	<p>Web: http://www.cs.wisc.edu/condor/</p> <p>Developed by: The Condor Project</p> <p>Distributions: NMI-R5 Download from the Condor Project</p> <p>Contact: condor-users@cs.wisc.edu *</p>
NetSolve/GridSolve	<p>Web: http://icl.cs.utk.edu/netsolve/</p> <p>Developed by: Innovative Computing Lab, Univ. of Tennessee</p> <p>Distributions: NMI-R5 Download from ICL</p> <p>Contact: netsolve@cs.utk.edu</p>
GridAnt	<p>Web: http://www-unix.globus.org/cog/projects/gridant/</p> <p>Developed by: The Globus Alliance</p> <p>Distributions: Download from the GridAnt website</p> <p>Contact: gregor@mcs.anl.gov</p>
Platform CSF	<p>Web: http://www.platform.com/products/globus/</p> <p>Developed by: Platform Computing</p> <p>Distributions: Platform Globus Toolkit Download from SourceForge.net</p> <p>Contact: gcsf-discuss@sourceforge.net *</p>
Chimera	<p>Web: http://www.griphyn.org/chimera/</p> <p>Developed by: GriPhyN Project</p> <p>Distributions: Virtual Data Toolkit (VDT)</p> <p>Contact: chimera-support@griphyn.org</p>
Pegasus	<p>Web: http://pegasus.isi.edu/</p> <p>Developed by: GriPhyN Project</p> <p>Distributions: Virtual Data Toolkit (VDT)</p> <p>Contact: deelman@isi.edu</p>

Species: Data Tools

Note: Chimera and Pegasus (see above) blur the boundaries between computation and data tools and may also be considered “data tools.”

GridFTP	<p>Web: http://www-unix.globus.org/toolkit/docs/3.2/gridftp/index.html</p> <p>Developed by: The Globus Alliance</p> <p>Distributions: Globus Toolkit 3.2 NMI-R5</p> <p>Contact: info@globus.org</p>
RFT	<p>Web: http://www-unix.globus.org/toolkit/docs/3.2/rft/index.html</p> <p>Developed by: The Globus Alliance</p> <p>Distributions: Globus Toolkit 3.2 NMI-R5</p> <p>Contact: info@globus.org</p>
GSI-SCP/SFTP	<p>Web: http://grid.ncsa.uiuc.edu/ssh/</p> <p>Developed by: Patch to OpenSSH by NCSA</p> <p>Distributions: NMI-R5 Download from NCSA</p> <p>Contacts: gsi-openssh@globus.org *</p>
UberFTP	<p>Web: http://dims.ncsa.uiuc.edu/set/uberftp/</p> <p>Developed by: NCSA</p> <p>Distributions: NMI-R5 Download from NCSA</p> <p>Contacts: gridftp@ncsa.uiuc.edu</p>
OGSA-DAI	<p>Web: http://www.ogsadai.org.uk/</p> <p>Developed by: UK eScience</p> <p>Distributions: Download from OGSA-DAI</p> <p>Contact: support@ogsadai.org.uk</p>
MCS	<p>Web: http://www.isi.edu/~deelman/MCS/</p> <p>Developed by: The Globus Alliance</p> <p>Distributions: Download from ISI</p> <p>Contact: mcs@mailman.isi.edu</p>
RLS	<p>Web: http://www-unix.globus.org/toolkit/docs/3.2/rls/index.html</p> <p>Developed by: The Globus Alliance</p> <p>Distributions: Globus Toolkit 3.2 NMI-R5</p> <p>Contact: info@globus.org</p>
Striped GridFTP	<p>Developed by: The Globus Alliance</p> <p>Distributions: Software can be made available on request</p>
NeST	<p>Web: http://www.cs.wisc.edu/condor/nest/</p> <p>Developed by: The Condor Project</p> <p>Distributions: Download from the Condor Project</p> <p>Contact: nest-discuss@cs.wisc.edu *</p>

Species: Collaboration tools

CHEF/Sakai	Web: http://www.chefproject.org/ http://www.sakaiproject.org/ Developed by: The CHEF and Sakai Projects Distributions: Download from chefproject.org Contact: ctools@umich.edu
OGCE	Web: http://www.collab-ogce.org/nmi/index.jsp Developed by: OGCE Project Distributions: OGCE will be distributed with NMI releases. Contact: discuss@ogce.org *
Access Grid	Web: http://www.accessgrid.org/ Developed by: NCSA Alliance/Argonne National Laboratory Distributions: Download from Argonne National Laboratory Contact: ag-tech@mcs.anl.gov *

Species: System Packaging/Distribution

PACMAN	Web: http://physics.bu.edu/~youssef/pacman/ Developed by: Boston University Distributions: Download from Boston University Contact: youssef@bu.edu
GPT	Web: http://www.ncsa.uiuc.edu/Divisions/ACES/GPT/ Developed by: NCSA Distributions: NMI-R5 Download from NCSA Contact: mbletzin@ncsa.uiuc.edu
NMI	Web: http://www.nsf-middleware.org/ Developed by: NSF Middleware Initiative Contact: support@grids-center.org
NPACkage	Web: http://npackage.npaci.edu/ Developed by: NPACI Contact: +1 858-534-5100
NPACI Rocks	Web: http://www.rocksclusters.org/ Developed by: NPACI Contact: npaci-rocks-discussion@sdsc.edu *
Virtual Data Toolkit	Web: http://www.cs.wisc.edu/vdt/ Developed by: GriPhyN Project Contact: vdt-support@ivdgl.org